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William M Lee Jr
Lee Mann Smith McWilliams
Sweeney & Ohlson
P O Box 2786
Chicago, IL 60690-2786

EXAMINER	
NGUYEN, DAVID Q	
ART UNIT	**PAPER NUMBER**
2681	6

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/693,128	Applicant(s) LLEWELLYN ET AL.	
	Examiner David Q Nguyen	Art Unit 2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 April 2004* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 5-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 5-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 04/16/04 have been fully considered but they are not persuasive.

In response to Remarks on page 9, Applicants argue that the system of Chu totally distinct from the wireless communication system described in claim 1 of this application in which "a common modulated radio frequency carrier signal is used in both the distribution network and over a said wireless connection to communicate said data between a said subscriber equipment and the base station" (this application, claim 1); Chu does not disclose use of a common modulated radio frequency carrier signal in both the distribution network and over the wireless connection between the distribution network and the subscriber equipment.

Examiner disagrees because the system of Chu disclose a common modulated radio frequency carrier signal is used in both the distribution network and over a said wireless connection to communicate said data between a said subscriber equipment and the base station as cited in claim1 of the application (see col. 3, line 49 to col. 4, line 5 and col. 6, lines 26-33).

Moreover, Chu discloses the hub 104 communicates with the repeater over a millimeter-wave link. The hub 104 has some hardware components that are the same as those used for the repeater that for both signal reception and transmission (see col. 6, lines 26-33). It is apparent that the designed system of Chu uses a common modulated radio frequency carrier signal in both the distribution network and over the wireless connection between the distribution network and the subscriber equipment.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1-3, 5, 8, 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Chu et al. (US Patent Number 5890055).

Regarding claim 1, Chu et al disclose a wireless communication system for communicating data between high density subscriber equipment and an external network, the system comprising: a base station (see fig. 1; base station 110) connectable to said external network (see col. 1, line 64 to col. 2, line 8; col. 3, lines 9-15; fig. 1; a fixed network 120; col. 4, lines 29-32); a distribution network (hub 24 and 25) coupled to the base station (see col. 3, lines 9-15; fig. 1); and a plurality of antennas (antennas 34, 35, 24, 36, 25, and 37) coupled to the distribution network (see fig. 1), each antenna providing a wireless connection for one or more proximate subscriber equipment to the distribution network (see fig. 1; col. 1, line 64 to col. 2, line 8; col. 3, lines 9-15); wherein said data is communicated between the base station and subscriber equipment by modulating a radio frequency carrier signal (see fig. 1 and 2; col. 3, line 49 to col. 4, line 5); and wherein a common modulated radio frequency carrier signal is used in both the distribution network and over a wireless connection to communicate said data between a said subscriber equipment and the base station, as described in Applicant's specification page 7 (see col. 3, line 49 to col. 4, line 5 and col. Lines 54-65).

Regarding claim 2, Chu et al discloses wherein each said wireless connection is a wireless local area network (see fig. 2).

Regarding claim 3, Chu et al also disclose wherein data is communicated by modulating multiple radio frequency carrier signals, only one of said signals being used in each WLAN (see col. 4, lines 55-65).

Regarding claim 5, Chu et al disclose wherein a said radio frequency carrier signal for a said WLAN is frequency multiplexed onto the distribution network (see fig. 1; col. 4, lines 55-65).

Regarding claim 8, Chu et al disclose wherein the distribution network is a predetermined radio frequency signal pathway between the base station and the antennas for the modulated radio frequency carrier signal (see fig. 1; col. 3, line 49 to col. 4, line 5).

Regarding claim 10, Chu et al disclose a method of operating a wireless communications system for communicating data between high density subscriber equipment and an external network (see fig. 1; col. 1, line 64 to col. 2, line 8), the system comprising a distribution network coupled to a plurality of antennas (see fig. 1); the method comprising: communicating data between the subscriber equipment and the external network by modulating a radio frequency carrier signal to provide a wireless connection between a said antenna and one or more proximate subscriber equipment, (see fig. 1; col. 3, line 49 to col. 4, line 5), wherein a common modulated radio frequency carrier signal is used in the distribution network and a said wirelss connection (see col. 3, line 49 to col. 4, line 5 and col. Lines 54-65).

Regarding claim 11, Chu et al also disclose wherein the distribution network provides a radio frequency signal pathway for the modulated radio frequency carrier signal (see fig. 1; col. 3, line 49 to col. 4, line 5).

Regarding claim 12, Chu et al disclose a wireless communication system for connecting high density subscriber equipment to an external network (see fig. 1), the system comprising: a base station (see fig. 1, base station 110) coupled to a plurality of wireless networks (see fig. 1 and 2) by a distribution network (see fig. 1 and fig. 2; hub 104, 105), each wireless network connectable to a number of said subscriber equipment (see fig. 2); wherein the base station communicates with the wireless networks using modulated radio frequency carrier signals (see fig. 1 and 2; col. 3, line 49 to col. 4, line 5); wherein a common modulated radio frequency carrier signal is used in the distribution network and a said wireless network (see col. 3, line 49 to col. 4, line 5 and col. Lines 54-65).

Regarding claim 13, Chu et al disclose a wireless communication system comprising all of the limitations as claimed in claim 12. Chu et al also disclose wherein the same modulated radio frequency signal is used in the distribution network and within a said wireless network to couple said subscriber equipment to the base station (see col. 3, line 49 to col. 4, line 5 and col. Lines 54-65).

5. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chu et al (US Patent Number 5890055) in view of Rypinski (US Patent Number 5461627).

Regarding claim 6, the system of Chu et al is silent to disclose wherein antennas providing WLANs having common carrier frequencies are spaced apart to minimize co-frequency interference. However, Rypinski discloses wherein antennas providing WLANs

having common carrier frequencies are spaced apart to minimize co-frequency interference (see col. 4, lines 48-52). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Rypinski to Chu et al in order for avoid interference and improve quality of signal.

Regarding claim 7, the system of Chu et al in view of Rypinski does not discloses wherein antennas providing WLANs having common carrier frequencies are physically separated by at least one antenna providing a wireless link having a different carrier frequency. However, Examiner takes official notice that antennas providing WLANs having common carrier frequencies are physically separated by at least one antenna providing a wireless link having a different carrier frequency because the frequencies used in wireless link are different with frequencies used in WLANs. So, the wireless link antennas have to be are separated by the WLANs antennas. Therefore, they are separated to receive different signals from different network.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chu et al (US Patent Number 5890055) in view of Knop et al (US Patent Number 6480163).

Regarding claim 9, the system of Chu et al in view of Rypinski does not discloses the signal pathway is a coaxial cable. However, Knop et al disclose the signal pathway is a coaxial cable (see col. 4, line 62 to col. 5, line 10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Knop et al to Chu et al in order for providing wireless connection between various nodes such as personal computer within an office environment.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Q Nguyen whose telephone number is 703-605-4254. The examiner can normally be reached on 8:30AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Erika A Gary can be reached on 703-308-0123. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

DN

David Nguyen

ERIKA GARY
PATENT EXAMINER